AMSynths

AM8705 Dual ADSR
User Manual
Fast Switching Envelope Generator

AM8705 Dual ADSR

Contents

AM8705 Dual ADSR

1   Welcome

Thank you for purchasing an AMSynths product.

The AM8705 fast switching envelope generator module has been designed and hand built in the UK to exacting quality standards. The module uses high quality electronic components and particular attention has been paid to the quality of the audio signal path, stability of the control circuits and the long term life of the product.
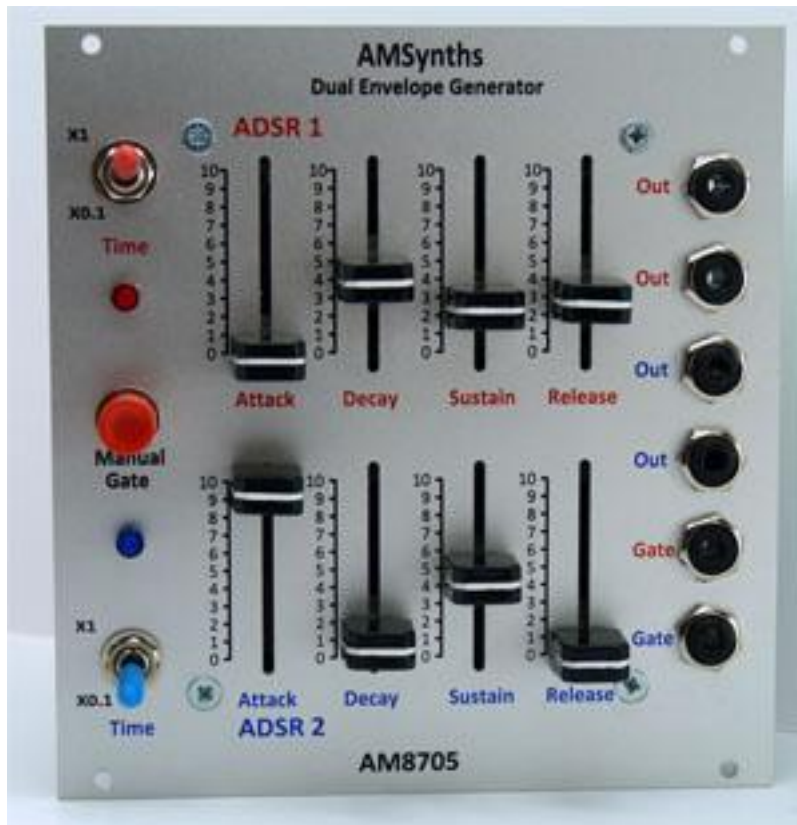
This user manual explains the basic functions of the module, as well the historic background to its development, how to install the module and the warranty and support.

AMSynths modules are produced in low volumes, with each module having a unique holographic serial number and a certificate of ownership. You own a rare and beautiful analog synthesizer module that will provide many years of amazing sounds and musical inspiration.

Rob Keeble
Owner & Designer
AMSynths
January 2012

AM8705 Dual ADSR

2   Front Panel

ADSR OUTPUTS:
Out ADSR1 c2
Out ADSR2 x2

CONTROL INPUTS:
ADSR1 Gate In
ADSR2 Gate In

CONTROL POTS:
Attack x2
Decay x2
Sustain x2
Release x2

SWICHES:
ADSR1 Time
ADSR2 Time

PUSH BUTTON:
Manual Gate

LEDS:
Red: ADSR1 Gate
Blue: ADSR2 Gate

The serial number is on a small silver holographic sticker on the inside of the front panel.

AM8705 Dual ADSR

3   Module Description

The AM8705 Dual ADSR is a traditional envelope generator that uses a fast switching Uni-junction transistor at its core. This provides very fast envelope times at low settings, which is very useful in sound control. The module is similar to the ADSR's in the Roland 700M and 100 module analog synthesizers of the 1970's.

The AM8705 fast switching envelope generator provides a wide palette of soundscapes from industrial to ambient. Enjoy!

4   Connections & Controls

This module contains two envelope generators each with 3 timed stages: Attack, Decay, and Release. The Sustain control adjusts the level to which the Decay time reduces to. Both ADSR's are triggered together by an internal gate signal from the standard Doepfer 16 pin bus, or a front panel push button (MANUAL GATE), or individually via a gate signal connected to the front panel Gate jacks (GATE1, GATE2).

The standard duration of each stage is 10 seconds, but each ADSR can be switched using the TIME toggle switch into a fast timing 1/10 the duration. This enables fast envelopes to be generated. Two identical control voltages are available for each ADSR, making it easy to patch an ADSR into both a VCF and VCA simultaneously. The gate signal is displayed for each ADSR via a dedicated LED. Each ADSR generates a control signal from 0V to +10V.

There is a Red gate LED for ADSR1 and a Blue gate LED for ADSR2. The toggle switches have color coded caps (Blue and Red) and the single gate switch is a Red push button.

5   Configuration

The AM8705 module occupies 24HP of EuroRack space and is fully compatible with various Euro Rack cases, especially Doepfer. The height of the panel is 128.5 mm and there are four mounting holes at each corner of the module. Four M3 diameter 6mm length mounting screws are included with the AM8705 to enable you to securely mount the module.

The module should be connected to the 12V Doepfer style power bus within your case using the included AMSynths multi-way power cable. Ensure the power is OFF before connecting the module and BE VERY CAREFUL to ensure that the power connector to the bus is connected with the red stripe of the cable lined up with -12V (negative 12V). This is standard Euro Rack power connection but be VERY CAREFUL to get this right! Damaged modules will not be replaced under warranty when the power has been misconnected. The power socket on the AMSynths module is keyed so that the cable can only be inserted the correct way and there are fuses on the PCB to protect the electronics if you do make a mistake.

6   Warranty & Support

Repairs resulting from a defect of the module or its construction process are covered by a one year warranty, with the customer paying transit costs to AMSynths in the UK.

Damage to the module resulting from incorrect power supply voltages, backwards power cable connection, abusive usage, fluid encroachment or out-of specification voltage input are not covered by the warranty and normal service rates apply.

AMSynths implies and accepts no responsibility for undesirable harm to a person or apparatus caused through operation of this device.

If you have questions regarding the use of this module or you need technical support please contact AMSynths via email at sales@amsynths.co.uk.

AM8705 Dual ADSR

7   Specifications

Power Supply:
+12V, GND and -12V standard Doepfer 10 pin connector
RED stripe on power cable is -12V (NEGATIVE 12V)

Current consumption:
TBD

Potentiometers:
x2 Attack, Decay, Sustain, Release

Connections [3.5mm jack]:
ADSR1 Out x2, Gate; ADSR2 Out x2, Gate

Switches:
1x Momentary action push button [red] for Gate ON
2x toggle switches to adjust envelope time

Indicators:
1x Red 3 mm LED in red plastic lens
1x Blue 3 mm LED in red plastic lens

Power:
Standard Doepfer 16-way cable to 16-pin power bus

Front panel:
Machined out of 2mm aluminium and colour printed

Dimensions:
24HP wide, standard 128.5 mm EuroRack height, 25 mm deer

Module Package Contents:

- 1x AM8705 EuroRack Module
- 4x Doepfer compatible 3mm diameter mounting screws
- 1x 300mm 16-way Doepfer compatible power lead
- Unique holographic serial number
- 12 month warranty covering product defects